DOCUMENT RESUME

ED 381 591 UD 030 348

AUTHOR Goldenberg, Claude; Sullivan, Jessie
TITLE Making Change Happen in a Language Minority School: A Search for Coherence. Educational Practice Report: 13.
INSTITUTION National Center for Research on Cultural Diversity and Second Language Learning, Santa Cruz, CA.
SPONS AGENCY California State Dept. of Education, Sacramento.; Office of Educational Research and Improvement (ED), Washington, DC.; Spencer Foundation, Chicago, Ill.
PUB DATE 94
CONTRACT R117G10022
NOTE 38p.
AVAILABLE FROM Dissemination Coordinator, National Center for Research on Cultural Diversity and Second Language Learning, Center for Applied Linguistics, 1118 22nd Street, N.W., Washington, DC 20037.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; *College School Cooperation; Educational Environment; Educational Improvement; *Educationally Disadvantaged; Educational Objectives; *Educational Planning; Elementary Education; Elementary Schools; Ethnic Groups; Hispanic Americans; *Instructional Improvement; Leadership; *Limited English Speaking; Minority Groups; Program Evaluation; School Administration; Teacher Expectations of Students; Urban Schools
IDENTIFIERS California; Hispanic American Students; Language Minorities; Latinos

ABSTRACT

This paper reports on a project aimed at improving academic achievement at a predominantly Latino elementary school in the metropolitan Los Angeles area. Project activities were guided by a school change model that helped provide a coherent, sustained focus over a period of several years. The model suggests four elements that can be used to produce changes in teaching and learning: goals that are set and shared; indicators that measure success; assistance by capable others; and leadership that supports and pressures. Administration and faculty at the school, aided by University of California, Los Angeles researchers, made substantial improvements in teacher expectations, teaching, school climate, and student achievement. (Contains 105 references.) (CM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 381 591

MAKING CHANGE HAPPEN IN A LANGUAGE MINORITY SCHOOL: A SEARCH FOR COHERENCE

CLAUDE GOLDENBERG & JESSIE SULLIVAN

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Making Change Happen in a Language Minority School: A Search for Coherence

Claude Goldenberg
California State University, Long Beach

Jessie Sullivan
"Lawson" School District (CA)

National Center for Research on Cultural Diversity and Second Language Learning

1994

Educational Practice Report No. 13

Editorial/production supervision: Whitney Stewart and Jeanne Rennie

Production: Guadalupe Hernández-Silva

Cover and interior design: Drews & Row, Inc.

This report was prepared with funding from the Office of Educational Research and Improvement (OERI) of the U.S. Department of Education, under Cooperative Agreement No. R117G10022. The findings and opinions expressed here are those of the authors and do not necessarily reflect the positions or policies of OERI.

© 1994 by the National Center for Research on Cultural Diversity and Second Language Learning, University of California, Santa Cruz

All inquiries should be addressed to Dissemination Coordinator, NCRCDSLL, 1118 22nd Street NW, Washington, DC 20037.

National Center for Research on Cultural Diversity and Second Language Learning

The National Center for Research on Cultural Diversity and Second Language Learning is funded by the Office of Educational Research and Improvement of the U.S. Department of Education to conduct research on the education of language minority students in the United States. The Center is operated by the University of California, Santa Cruz, through the University of California's statewide Linguistic Minority Research Project, in collaboration with a number of other institutions nationwide.

The Center is committed to promoting the intellectual development, literacy, and thoughtful citizenship of language minority students and to increasing appreciation of the cultural and linguistic diversity of the American people. Center researchers from a variety of disciplines are conducting studies across the country with participants from a wide range of language minority groups in pre-kindergarten through Grade 12 classrooms. Research projects deal with the relationship between first and second language learning; the relationship between cultural and linguistic factors in the achievement of literacy; teaching strategies to help children from diverse linguistic and cultural backgrounds gain access to content material; alternate models of assessment for language minority students; various instructional models for language minority children; and the effect of modifications in the social organization of schools on the academic performance of students from diverse backgrounds.

Dissemination is a key feature of Center activities. Information on Center research is published in two series of reports. *Research Reports* describe ongoing research or present the results of completed research projects. They are written primarily for researchers studying various aspects of the education of language minority students. *Educational Practice Reports* discuss research findings and their practical application in classroom settings. They are designed primarily for teachers, administrators, and policy makers responsible for the education of students from diverse linguistic and cultural backgrounds.

For more information about individual research projects or to have your name added to the mailing list, please contact:

Barry McLaughlin, Director
National Center for Research on Cultural Diversity
and Second Language Learning
141 Kerr Hall
University of California
Santa Cruz, CA 95064

COLLABORATING INSTITUTIONS

University of California
Santa Cruz

University of California
Irvine

University of California
Los Angeles

University of California
San Diego

University of California
Santa Barbara

University of Arizona
Tucson

University of Southern California
Los Angeles

Center for Applied Linguistics
Washington, DC

Technical Education Research Center
Cambridge, MA

Acknowledgments

Many individuals have made the work reported here possible, and we would like to acknowledge their contributions. The "Freeman" faculty has been instrumental in obtaining the results we report. We are particularly grateful to those teachers who have led workgroups, worked on the Academic Expectations and Assessment Committees, and otherwise played leading and significant roles in helping to make change happen at the school. We have been greatly assisted at different times in the project by several researchers from UCLA and USC. We would like especially to thank and acknowledge the invaluable contributions of Janet Hamann, who as a post-doctoral scholar at UCLA conducted almost all of the interviews and much of the ethnographic fieldwork upon which this report is based. She also co-authored earlier papers that reported on the first two years of the project. We would also like to thank Bill Saunders, Genevieve Patthey-Chavez, Jana Echevarría, Ronald Gallimore, Ana Jiménez-Hami, Anne Powell, and Laurette Cano. Colin Sacks, Whitney Stewart, and an anonymous reviewer provided useful feedback on an earlier version of this paper. Finally, we would like to express our deepest appreciation to the Superintendent, District Office administrators, Board of Trustees, and children and families of the "Lawson" School District for making this work possible. We dedicate this work especially to the children and families.

Funding has been provided by the U.S. Department of Education Office of Educational Research and Improvement, the Spencer Foundation, and the California State Department of Education. No endorsement from any source is implied nor should be inferred. Portions of this paper have been presented at the annual meeting of the American Educational Research Association, New Orleans, LA, April 1994, and as part of the second author's doctoral dissertation (Sullivan, 1994).

Making Change Happen in a Language Minority School: A Search for Coherence

Overview

This paper reports on a project aimed at improving academic achievement at a predominantly Latino elementary school in the metropolitan Los Angeles area. Project activities were guided by a school change model that helped provide a coherent, sustained focus over a period of several years. The model suggests four elements that can be used to produce changes in teaching and learning: *goals* that are set and shared; *indicators* that measure success; *assistance* by capable others; and *leadership* that supports and pressures. Administration and faculty at the school, aided by UCLA researchers, made substantial improvements in teacher expectations, teaching, school climate, and student achievement.

Introduction: Reform's Disappointments

> "If one is always looking for unusual circumstances and dramatic events, he cannot appreciate how difficult it is to make the ordinary happen." (Pressman & Wildavsky, 1973, p. xii)

Since 1983, the United States has been in the midst of an unprecedented effort to improve its schools. Reports and critiques of American education, published in the early 1980s, "launched the most widespread, intense, public, comprehensive, and sustained effort to improve education in our history" (Murphy, 1991, p. viii). "It is impossible to estimate the number of innovative programs," observed Fullan (1991, p. 4). "In New York . . . 781 innovative programs were piloted between 1979 and 1981. . . . And that was a quiet period compared with the innovative boom since 1983" (Fullan, 1991, p. 4). Now into its second decade, the wave of school reform launched in 1983 shows no signs of abating. To the contrary, efforts continue to proliferate, and approaches range from creating national standards to creating charter schools to developing networks of restructuring schools (Finn & Walberg, 1994; Olsen et al., 1994; Olson, 1994).

Yet, as in the past, and despite pockets of progress and programs that work (see, e.g., Olson, 1994; Slavin, Karweit, & Wasik, 1994), disappointment is the rule. Surveys, reports, and accounts in the popular press suggest that changes in schooling, teaching, and learning are illusory (Berman et al., 1992; Byrnes, 1994; Harp, 1992; Leonard, 1992; Sarason, 1990). The Educational Testing Service has found modest improvement at the most basic academic levels but concluded that overall achievement in 1990 was very similar to what it was in 1970 (Mullis, Owen, & Phillips, 1990). More recent reports show mixed trends over the past decade, with improvements in science and mathematics and declines in reading (Mullis et al., 1994).

Of particular concern is how—and whether—the reform movement has affected students from diverse cultural and linguistic backgrounds. Although the achievement of minority students appears to have improved somewhat since 1970 (Mullis, Owen, & Phillips, 1990), it is still far below acceptable levels. For example, 85% of Hispanic fourth and eighth graders read at a "basic" level or below. Over half scored even below basic, meaning they could not demonstrate understanding of a text written at their grade level (Mullis, Campbell, & Farstrup, 1993). Critics argue that minority children, who typically have fared worse than their majority counterparts, are being systematically excluded from the reform movement (Olsen et al., 1994).

Why are reform efforts so disappointing in general and, in particular, for children least likely to succeed in U.S. schools? A large and growing literature attempts to answer this question (e.g., Cohen, 1988; Cuban, 1990; Fullan, 1991; Olsen et al., 1994; Sarason, 1990; Slavin , Karweit, & Wasik, 1994). Commentators offer various explanations—rational, nonrational, technical, institutional, cultural, political, and economic. No doubt many

factors are at play. Without denying the potential importance of any factor, we based the project described here on the assumption that the basic problem is a fundamental lack of coherence at school sites. This lack of coherence is a reflection of (1) the overload schools are experiencing—partly a product of successive reform waves and especially exacerbated in schools with many low-achieving children—and (2) the absence of school contexts that connect the *idea* of change to the *actions* of teachers.

The Problem of Overload

The inventory of changes, initiatives, and innovations facing educators is overwhelming. In California, where restructuring efforts have been undertaken in all curricular areas and at various levels of schooling, administrators have reported that teachers are "overwhelmed by one major curriculum reform after another" (Baseggio, 1990, p. 41). California Tomorrow's survey of "restructuring schools" found the same thing: "School staffs are close to overwhelmed with the enormous challenges of reshaping an educational system and implementing new reforms" (Olsen et al., 1994, p. 105). Nationally, the picture is similar. The magazine of the American Federation of Teachers notes, "Recommendations for curriculum reform have been coming from all directions. . . . For the classroom teacher, the sheer amount and extent of it all can be overwhelming" (What should elementary students be doing? 1992, p. 18).

Some specifics are new, but in many ways the situation is not. We have known for at least a quarter of a century how complex, demanding, overwhelming, and filled with uncertainty classroom teaching is (Fullan, 1991; Jackson, 1968; Lortie, 1975). The current intensive climate of reform, together with heightened awareness of student diversity and intensification of a wide range of social concerns (Committee for Economic Development, 1991; Kirst et al., 1989), continues to aggravate an already complex situation in schools. A majority of teachers (52%) throughout the nation report that 20% or more of their students have serious family problems that interfere with learning. An even larger majority of teachers report that alcohol, abuse or neglect, poor health, undernourishment, apathy, lack of parental support, absenteeism, disruptive behavior, and student turnover are serious problems in their schools (Carnegie Foundation for the Advancement of Teaching, 1990). "What happened to education reform in my building?" a teacher in Kansas asked:

> Gangs, guns, disruptive behavior, teenage pregnancy, serious problems from dysfunctional families and society which spill over into the school have thwarted the ambitious plans to "reform" education. . . . Won't someone please report that we are working very hard under very stressing conditions? . . . Our morale is terrible, but most of us are doing our best to make life better for our students. (Carnegie Foundation, 1990, p. 18)

The Absence of Contexts for Change

Changing schools has never been easy (Cohen, 1988; Cuban, 1990; Sarason, 1971, 1990). Now it might be more difficult than ever. Ironically, although dissatisfaction with student achievement precipitated the current reform efforts, the avalanche created by the dissatisfaction now threatens to doom our current drive. Educators are being asked to make a large number of changes, but within contexts that fail to support actually making and sustaining the changes (Fullan, 1991; Sarason, 1971, 1990; Tharp & Gallimore, 1988).

Large majorities of teachers report that working conditions—such as the number of nonteaching duties, and time and space for preparation and study—have either stayed the same or deteriorated since 1983 (Carnegie Foundation for the Advancement of Teaching, 1990). Teachers are expected to implement new policies and programs, but they receive either no help at all or "staff development" assistance in the form of one-shot or short-term workshops that generally fail to produce meaningful changes (Little et al., 1987). There is also a stunning shortage of substantive and pedagogical knowledge essential for most reforms (Cohen et al., 1990). Compounding this problem is that teachers usually work in isolation from each other and from other professionals who could contribute to their pedagogical knowledge (Little, 1982; Rosenholtz, 1989). Twenty-six percent (26%) of teachers report that they have no regularly available time for meeting with colleagues; a large majority of teachers report that the time that is available is of only "fair" or "poor" quality (Carnegie Foundation for the Advancement of Teaching, 1990). Can meaningful and substantive change occur in such settings?

No matter how sound the proposed innovations or how well supported by research, meaningful change cannot take place under circumstances where coherence and continuity are nonexistent. Fullan and his colleagues identify the problem:

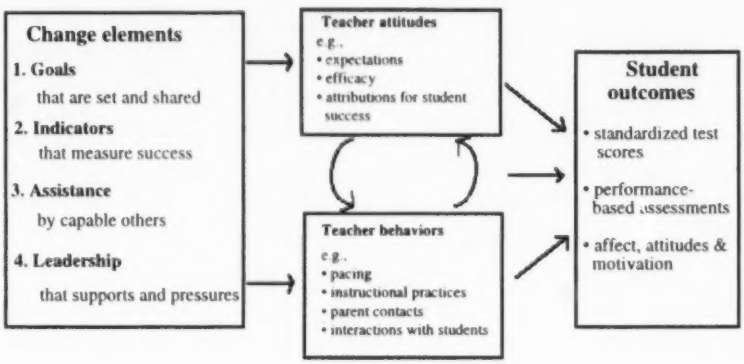
> The greatest problem faced by school districts is not resistance to innovation, but the fragmentation, overload, and incoherence resulting from the uncritical acceptance of too many different innovations which are not coordinated. (Fullan, Bennett, & Rolheiser-Bennett, 1990, p. 19)

A Model to Guide Change

Numerous models of the change process exist (Sashkin & Egermeier, 1993); findings about school change converge on many points (Fullan, 1991). However, just as educators suffer under daily overload, would-be reformers risk a similar fate. Undoubtedly, "the sheer complexity of the change process" (Fullan, 1991, p. 67) is a reality, just as the sheer complexity of life in schools—particularly in late 20th-century America—is a

reality. To help school personnel find a sense of coherence—a sense that different activities at the school are all related to a common, generally understood, overall purpose—the authors of this report developed a model to guide change efforts at the local school level. The model used to guide our efforts at "Freeman" School (a pseudonym) is shown in Figure 1.

FIGURE 1. CONCEPTUAL MODEL AND VARIABLE INTERRELATIONS



Versions of three of the change elements shown in Figure 1 have been identified previously: clear and well understood goals; monitoring of student progress; and strong instructional leadership. These three have long been a part of the "effective schools" canon. More recently, a fourth factor has received attention: assistance by others (see Fullan, 1985, 1991; Loucks-Horsley & Mundry, 1991; Tharp & Gallimore, 1988). We expected that these four elements would affect student outcomes by affecting teacher attitudes and cognitions (e.g., expectations, efficacy, attributions) and behaviors (e.g., specific instructional practices, parent contacts, interactions with students) that influence student achievement. (For the relationship between teacher attitudes and student achievement, see Ashton, Webb, & Doda, 1983; Brophy, 1983; Clark & Peterson, 1986; Cooper & Burger, 1980; Frieze, 1976; Koehler, 1988; Winfield, 1986. For teacher behaviors and student achievement, see Barr, 1973-74; Barr & Dreeben, 1983; Brophy & Good, 1986; Rosenshine & Stevens, 1986; Walberg, 1984, 1986, 1990; Wang, Haertel, & Walberg, 1993). In this report, we describe how this model was operationalized and what the effects have been at one school site that serves a largely Latino population.

BACKGROUND AND CONTEXT

Project Setting

Freeman School is one of five elementary schools in a small, heavily Latino district in southern California. It is located in one of the poorest and

most densely populated areas in the state, an area also known for its crime and drug problems (Russell, 1991). The district's 27,000 mostly low-income inhabitants occupy an area of less than 1.2 square miles; this unincorporated portion of Los Angeles County has a population density more than double that of the surrounding metropolitan area. The school itself is directly under the flight path of jets landing at nearby Los Angeles International Airport and adjacent to a major freeway linking northern and southern Los Angeles County. The sights, sounds, and smells of jets overhead and of freeway traffic next to the playground are as much a part of Freeman's environment as are books and schoolbells.

Since 1968, as a result of the influx of Mexican and Central American immigrants into the United States, particularly into southern California (Vernez & Ronfeldt, 1991), the district has experienced enormous growth in its student population and fundamental changes in its ethnic composition. District enrollment has climbed from fewer than 3,000 mostly white, English-speaking students in 1968 to nearly 6,000 mostly Hispanic and limited English proficient (LEP) students today. Most parents in the district are immigrants, but the majority of their elementary-aged children are U.S. born.

The demographic characteristics of Freeman's 800 students and their families are very similar to those of the rest of the district: 95% are Hispanic, with the remainder African American (3%), Anglo American (1%), or Pacific Islander (1%); 93% of the students come from homes where Spanish is the dominant language; 89% qualify for free meals at school, and another 7% qualify for reduced-price meals; 86% of the students are limited English proficient (LEP); Hispanic parents (three fourths from Mexico, the rest from Central America) have had an average of seven years of formal schooling. The low overall social and economic status of English-speaking parents (who work in skilled, semi-skilled, or unskilled occupations) suggests that they, too, have relatively low levels of formal schooling.

School Program and Student Achievement

The entire district uses a transitional bilingual education program for its Spanish-speaking pupils. Typically, Spanish-speaking students receive academic instruction (language arts, math, science, social studies, etc.) in their primary language while they are learning the English skills they will need for transition into all-English instruction. Students remain in the bilingual program from kindergarten through Grade 3 or 4, depending upon when they enter the school, how quickly they progress academically, and when they become sufficiently proficient in English.

The district's bilingual education program conforms in virtually all respects to the state framework for educating language minority children. Indeed, the district's bilingual program is very well regarded. It has received commendations from the California State Department of Education and favorable notices in the local press (Millican, 1991). One recent article in the

Los Angeles Times called the district "renowned" for its efforts to educate its low-income Latino students (Richardson, 1994).

Nevertheless, student achievement in the district—and especially at Freeman—has been low. Low academic achievement is only too common for minority children in general and for Hispanic children in particular (De La Rosa & Maw, 1990; Haycock & Navarro, 1988). In the last administration of the California Assessment Project (1990), on a state-wide scale, English-speaking students at Freeman scored between the 7th and 15th percentiles on reading, writing, and mathematics. Freeman's scores were below the district averages. On the 1990 administrations of the Comprehensive Test of Basic Skills and the Spanish Assessment of Basic Education, Freeman's median percentile ranks were 35th, 27th, and 23rd in reading, language, and mathematics, respectively. Children's academic levels, as gauged by test scores or textbook placement, suggested that over 70% of students were below grade level when this project began.

Thus, although a program that focuses specifically on the linguistic and cultural characteristics of immigrant and language minority students is probably necessary to enable these students to succeed in U.S. schools (California State Department of Education, 1981, 1986), such a program, by itself, cannot guarantee student success. A major premise underlying this project is that certain principles of effective school organization, teaching, and curriculum are also necessary components for effective schooling for this population. These principles are embodied in our model of change and in the various products and activities derived from this model, all of which are described in greater detail below.

Methods and Data

Based upon the model shown in Figure 1, the authors initiated a school improvement effort beginning in 1990-91. (Goldenberg was, at the time, a research psychologist at UCLA; Sullivan was, and is still, the school principal.) The model was developed for the second author's doctoral dissertation (Sullivan, 1994); research for the dissertation constituted part of a larger project—funded by the National Center for Research on Cultural Diversity and Second Language Learning and by the Spencer Foundation—that was designed to study the process of school change and improvement in a language minority school. Our explicit goal was to build upon the solid foundation provided by the district's well-implemented bilingual education program and to work toward promoting higher levels of student achievement overall.

In the very earliest stages, the two authors met and planned structures and activities they thought would help provide a coherent focus for school change efforts aimed at improving achievement. They actively participated in activities and settings designed to promote changes, and they kept notes about their own and the teachers' participation and responses. Data for this

report are drawn from the authors' field notes, journal entries, and interviews with teachers.

In addition, a post-doctoral scholar from UCLA, Janet Hamann, served as an ethnographer at the school during the first two years of the project. She conducted wide-ranging interviews, both formal and informal, with a majority of the teachers at Freeman. The nearly 250 interviews include 39 in 1991-92 and 24 in 1992-93 that were audio taped and transcribed; more than 20 interviews with the principal; and 15 interviews with the school's two resource specialists. William Saunders, a UCLA doctoral student who later became a post-doctoral scholar, joined the project in 1991 as leader of a writing workgroup and as assessment coordinator. He also worked closely with many teachers on the faculty and collected interview and observational data on teachers and students with whom he worked. In 1993-94, he took the lead in facilitating the Academic Assessment Committee.

Achievement data come from available scores on district administrations of the Comprehensive Test of Basic Skills and the Spanish Assessment of Basic Education (both published by CTB/McGraw Hill) and from California's state testing program. Until 1990, California's state test was known as the California Assessment Project (CAP); after 1992 and after fundamental revision, it became the California Learning Assessment System (CLAS). These tests were administered as part of the district's normal educational program.

Making Change: Unpackaging the Change Elements

The change elements identified in Figure 1 have deep roots and can be operationalized in many different ways. We will give a brief theoretical rationale for each element, followed by a description of how it was operationalized at Freeman. Due to space constraints, descriptions will be selective rather than comprehensive.

Goals That Are Set and Shared

Setting goals is a venerable concept in 20th-century American education (Tyler, 1949). Recent educational scholarship supports the idea that common and mutually understood goals are vital for any successful change effort (Carter & Chatfield, 1986; Good & Brophy, 1986; Peterson & Lezotte, 1991). Goals help provide coherence and focus for change efforts. Given the inordinate complexity faced by teachers and other school personnel, the setting of clear goals will help guide teacher and student behavior in a way that will increase the likelihood that these goals will actually be achieved. Cognitive models of behavior (e.g., Deci, 1975; Weiner, 1980) suggest that goal setting is important, because goals affect behavior. Generally under-

stood goals are probably especially important for long-term change and improvement efforts, because goals are vital to maintain a coherent and stable vision. As important as it is to set goals, it is perhaps even more critical that goals be shared by participants. Much of the literature on restructuring schools points to the need for involving teachers in decision making (Lieberman, 1988a, 1988b; Rosenholtz, 1989). This literature also suggests that collaboration in setting goals bolsters teacher efficacy—that is, the extent to which teachers believe they can influence student learning (Clark & Peterson, 1986).

After a number of attempts and some false starts during Sullivan's first year, the first step we took in the change process was to convene an "Academic Expectations Committee" (AEC) comprising teachers from each grade level. The function of the AEC, as we envisioned it, was to develop academic goals and expectations for students at the school. Our hope was to develop meaningful goals that would help create a shared vision of what was important in children's literacy and mathematical development. The purpose was not to break learning down into discrete bits and pieces.

When the AEC first met in the fall of 1990, reaction was mixed. Some teachers were supportive, others noncommittal, still others skeptical. Despite our intentions, the principal's proposal still sounded to some teachers like previous efforts to develop "behavioral objectives," which had led to a great deal of testing and practice for testing, but to little real learning (Hess, 1991; Savage, 1985). One of the teacher's direct experience with behavioral objectives in the Los Angeles School District was still fresh in her mind: "We were testing the kids all the time and didn't accomplish anything."

Sullivan did not insist on agreement nor take a vote. Instead, she stated her objectives and rationale and proposed that the AEC meet again the following month to see where this idea led them. Teachers agreed, despite the skepticism of several in the group. With that beginning, the committee worked for over two years with the entire faculty and eventually developed a set of academic goals for students in Grades K-5 in language arts and mathematics.

In formulating these goals, we worked within the framework of goals established by the California State Department of Education for limited English proficient (LEP) students. This framework, which is reflected in the district's bilingual education program, has three principal goals: (1) development of English competence, (2) access to the core academic curriculum, and (3) positive self-image and cross-cultural understanding (Gold, 1992). We expanded this framework by articulating explicit goals for literacy and math development in both languages of instruction (i.e., English and Spanish). Most important, we attempted to construct an appropriate balance among the various skills, knowledge, and understandings necessary to promote academic development for students, regardless of the language of instruction.

During the project's second year (1991-92), Goldenberg led monthly day-long AEC meetings, which were made possible by a restructuring

planning grant from the California State Department of Education. He brought in key material that the AEC consulted in doing their work, for example, Chall (1983) and Clay (1985) for reading, Calkins (1986) for writing, and the National Council of Teachers of Mathematics (1989) for mathematics. The grade-level academic goals developed by the AEC reflect the developmental nature of learning: Not only do children acquire increased knowledge and skills as they progress through the grades, but the understandings they construct change qualitatively and grow in complexity and sophistication.[1]

Indicators That Measure Success

Assessment of student progress toward agreed-upon goals complements the goals themselves. Assessments explicitly tied to goals serve not only to reinforce the importance of the goals, but also to help teachers and administrators gauge their own efforts in relation to these goals. Consistent use of achievement indicators has been found to be related to improvement in student outcomes (Edmonds, 1979; Good & Brophy, 1986; Peterson & Lezotte, 1991; Slavin, Madden, Karweit, Livermon, & Dolan, 1990; Tharp & Gallimore, 1988). Indicators are not used to single out individuals for praise or censure (although they can be). Rather, as part of a feedback loop, indicators gauge whether goals are being attained and whether a program is having desired effects. Indicators, in other words, help answer the questions, "Is what we're doing working?" and "Where are the data?"

At Freeman, we have used several indicators to gauge progress. One is student reading book placement. We found in an earlier study that when reading achievement improves, students are more likely to be on grade level in their text placement (Goldenberg & Gallimore, 1991a). This is consistent with previous research suggesting that student pacing is related to student achievement (Barr, 1973-74).

More recently, we developed a set of performance assessments based on language arts goals and expectations. The assessments have been developed in collaboration with the "Academic Assessment Committee," the immediate descendent of the Academic Expectations Committee. We instituted yearly spring assessments, beginning in 1991, during which we attempted to gauge such important aspects of students' literacy development as self-initiated reading, attitudes toward reading and writing, and literacy competencies (e.g., writing summaries and story endings, reading comprehension, and correct use of written conventions). Teachers from Freeman and other schools participate in scoring sessions, during which they are trained to use rubrics to analyze and score student work collected during the spring assessment. Results are shared with the entire faculty to allow an informed discussion of the extent to which academic goals are being met.

We have also had access to English and Spanish standardized test scores (CTBS and SABE, CAP, and CLAS), which serve as external indicators because they are not explicitly tied to our goals and expectations.

Assistance by Capable Others

In contrast to bureaucratic approaches to organizational change—where administrators set policies and guidelines then hold teachers accountable—recent research and writing have emphasized the importance of mutual assistance among fellow professionals (Lieberman, 1988a, 1988b; Little, 1982; Redefining supervision, 1989; Rosenholtz, 1989; Rowan, 1990). Various models for assisting teachers exist (Joyce & Showers, 1983; Lieberman, 1988a, 1988b; Redefining supervision, 1989; Saunders, Goldenberg, & Hamann, 1992; Showers, Joyce, & Bennett, 1987; Tharp & Gallimore, 1988, 1989). Despite their differences, these models have in common the explicit rejection of one-shot workshops and in-services as ways of helping teachers change and improve their teaching (Goldenberg & Gallimore, 1991b). Although workshops or in-services can be useful for presenting theory or information, they do not provide the assistance required for making real and long-term changes in schools.

We hypothesized that when adequate assistance is provided in a context where goals are reinforced and shared, and where teachers are helped to achieve them, changes in teaching and student achievement will result. The assistance can be from the principal, fellow teachers, instructional or curriculum specialists, or outside consultants, but it must be part of the context for initiating and maintaining change. Assistance at Freeman has been provided in numerous contexts:

- Goldenberg met with the principal weekly (less frequently in recent years) to identify issues, plan strategies, and apply ongoing developments to change efforts;
- Teacher workgroups in various curriculum areas (writing, thematic teaching, instructional conversation, cooperative learning, kindergarten) and a workgroup for new teachers have met weekly or three times per month;
- Faculty in-services and workshops have been held to deal with specific issues important to the overall change effort;
- Grade-level meetings on a monthly basis have allowed teachers to discuss and help each other deal with nuts-and-bolts issues related to improving student achievement;
- Goldenberg and Saunders have helped the principal and the Academic Expectations (later, Assessment) Committees carry out their work in developing goals and assessments;
- The principal, the instructional specialist, and teachers have met on a quarterly basis to discuss progress on goals and expectations.

Workshops and in-services have been closely related to the overall project and its goals, rather than being one-shot, stand-alone events. Saunders has given workshops on writing, reading comprehension, and analyzing and scoring student written work. These workshops have been

grounded in the published literature (e.g., Dole, Duffy, Roehler, & Pearson, 1991; Graves, 1983; Pandey, 1991), but have also been informed by the emergent issues and needs at the school. Goldenberg has given workshops on using homework to improve achievement. Homework is a generally effective way of supporting academic improvement (Cooper, 1989), and it is also a culturally appropriate and meaningful activity for this population of students (Goldenberg, 1993). To provide further assistance, a bilingual aide was hired to serve as a "homework liaison" to help children overcome difficulty completing assignments (Jiménez-Hami & Goldenberg, 1994).

Assistance has come in many different forms. But it has been provided within a larger context where improved student achievement is the staff's clear and unambiguous goal.

Leadership That Supports and Pressures

Of the four elements in our model, leadership is most closely associated with the effective schools movement. The leadership of the principal has consistently emerged as the most potent factor in the school change equation (Berman & McLaughlin, 1977; Bickel, 1983; Bliss, Firestone, & Richards, 1991; Edmonds, 1979; Fullan, 1991). Leadership is probably the first among equals of our four change elements. Different authors suggest that different dimensions of leadership are critical (Brandt, 1987; Sweeney, 1982). We hypothesize that in the context of the three other key elements—goals, indicators, and assistance—there are two primary leadership dimensions that subsume the dimensions previously identified: supporting and pressuring. Although these two appear to be at odds, we see them as complementary and as producing a creative tension. The skillful principal—indeed, the skillful leader—will know when to exercise one or the other or both simultaneously. We speculate that this tension is perhaps the most elusive, but important, aspect of leadership (Blase, 1987; Huberman, 1983; Miles, 1983).

Leadership—whether by the principal or some other individual—provides the cohesion that makes the other elements and components of our model work together. In the absence of leadership at the school site, *goals* cannot be articulated nor accepted, *indicators* cannot be developed nor implemented, and *assistance* cannot be systematically nor strategically provided.

Leadership at Freeman has been provided by several individuals, most prominently the principal. She has been instrumental in navigating the complex waters of change, pushing at times and holding back at others. Leadership has also been provided by the researchers/consultants involved in this project, particularly in their work with committees of teachers to develop goals and assessments. Teachers at the school have also played leadership roles. This has been especially true of members of the goals and assessment committees. Teachers have reported their committees' work to members of their grade-level teams, and they have had to encourage colleagues to try out new classroom activities and assessments. A comment

we frequently heard from these teachers was that this project required them to relate to their colleagues in different—and not altogether comfortable—ways. For the first time, they were being asked to have fellow teachers change what they did in the classroom. Many teachers found this changing of roles challenging and even unsettling.

Results to Date

Our results have been encouraging: Teachers express satisfaction with efforts undertaken to improve student achievement, and we have evidence that achievement is improving.

Changes in Expectations

We have seen and heard reports of important changes in teachers, as predicted by our model of change. For example, teachers have raised their expectations and expressed willingness to work with students to help them attain high academic standards. One teacher, who initially was very skeptical of the early goal-setting effort, made the following observation at the end of the project's first year (1991):

> At first the teachers said, how is this possible? Our kids can't do this. Then [the principal] gave her support, her statement at the large faculty meeting [before meeting as grade levels]. Now teachers are saying if the kids [come to them] on grade level they can meet these goals. At first I was skeptical and worried, but now I think these expectations give us the opportunity to shoot for more. Now teachers who were afraid of this are willing to work together.

Other teachers suggested that expectations are not necessarily higher now; rather, they are more specific. Teachers claim their expectations have always been high, but now the goals and expectations articulated among the staff make expectations explicit. When Saunders interviewed several fifth-grade teachers in the middle of Year 4 (December, 1993), he asked, "Do you think that your expectations have increased over the last few years? Do you hold higher expectations now?"

T1: I think so. Of course I always held high expectations, but I think even higher. No, they're maybe not . . . they're more specific.
BS Ah.
T2: That's what I would say. They're more specific.
T1: They're more specific. Yeah. Because we all have them.
BS: You mean in terms of what you're actually looking for.
T1: We all have high expectations, but now they're . . . categorized, labeled.

Other teachers see the goals and expectations as playing a key role in helping teachers to focus on key instructional and curricular items in the face of an overwhelming number of responsibilities and agenda items. One of the teachers Saunders interviewed made the following comment:

> I've always felt the problem of getting it all in. You know, it's like, what goes on the back burner? And I've always felt that. Now, because of the goals and expectations, it is more cut and clear what goes on the back burner . . . . But I've always felt like, you know, like I'm spinning in there, like well where do I focus and put my emphasis, and something's got to go, and . . . . So because of the goals and objectives I'd say I am more focused.

Changes Reported in Teaching

Because we have not done systematic classroom observations to document changes in actual classroom teaching, our evidence here is indirect and relies on reports by teachers. These data are, of course, subject to the obvious limitations of self-reported accounts. Nonetheless, we have many indications that changes have taken place. For example, this is what one first-grade teacher said at the end of the project's second year (May, 1992):

> I think [the] teachers have changed since we've worked on AEC and the restructuring grant. In the teachers' lounge there's not so much griping about kids as there was several years ago. We're talking about the grant, and about kids and what they can do and what they need, in a more meaningful way than we did before. [One teacher] is a changed person. What she has her kids do now is much more related to what they are interested in—like the hands-on activities—measuring out Tang juice so everyone in the math group gets the same amount. [Another teacher] and I are doing sex ed this year. When we were meeting together to plan how we'd do this, [she] said, "The kids I'm getting next year are awful, but then my kids aren't all on grade level this year, either. And the fifth-grade teachers will scream. But I did my best." Now, a year or so ago, [she] wouldn't have even been concerned; she would never have made that kind of statement. So there's been change, change in the right direction, and that's all hopeful.

More specifically, teachers say that the academic goals and expectations have influenced their teaching by providing focus and coherence to classroom instruction. When asked whether the goals influenced what she did, one teacher gave the following response:

> They help me. They give me a clear idea of what's expected of the kids. They're very useful reference . . . especially now as we get towards the end of the year . . . . Before it was just—we got them through the books, we did nontraditional curricular things: core literature, the writing process and things, but now we have a definite list, a definite set of goals that we can work to, or try to accomplish. So they do help me.

Another teacher was even more definitive in her assessment of how the goals affect her day-to-day teaching:

> These goals absolutely influence me as a teacher. I design my lesson plans [so] that I can make sure that the children do get the skills necessary to achieve these goals. (JH: Can you think of an example?) [One of] my goals

> [was] . . .to get the kids reading on grade level in class, and that's [now] most of my kids. Almost every single kid is reading up to grade level. They're not perfect, but they do read in the grade-level book . . . . I think that the goals are becoming more clearly defined. I think that a few years ago yes, they did have goals laid out for students, but I don't think they were as clearly delineated and as specific as they are now.

Because our intent from the beginning was to have the various components of our efforts converge into one overarching framework for change and improvement, this teacher also tied the work of the Academic Expectations Committee to her work with one of the teacher workgroups:

> One thing was that I was in a writing group, and I got to really look at what the other teachers were doing in writing. I got to look at what the expectations, the Academic Expectations Committee wants, and I got to look at exactly what my students were doing and what they were capable of doing and I can see absolute progress in the writing skills.

The workgroups, in fact, have emerged as a prime setting where teachers receive assistance in their change efforts. One teacher offered this observation:

> In the writing group that I'm in . . . every single meeting we discuss what we've done in our classroom, we discuss how to make it better, we discuss where we want our kids to go after that, we discuss so we know what the teachers are working on, and we can see—we pick up new ways to get across skills, we pick up new types of lessons to do, to address what our goals are in a particular subject area. So that alone has been better. I'm sure that the IC [Instructional Conversation] group, I'm sure that the reading-language arts, thematic teaching, I'm sure . . . they have contributed to [those teachers'] classroom environment and their classroom teaching.

The contrast is particularly strong between the professional development opportunities now available at the school and the opportunities that teachers typically receive. When asked during the third year whether the staff development process at the school was different from that of earlier years, one teacher gave this response:

> I'd say it's remarkably different. A few years ago we had mostly district-mandated in-services . . . unfortunately they couldn't be more than two or three times [during the year] and it could have been [only] an introduction [or] getting your feet wet, and it's a new part of the curriculum. And then all the in-servicing would stop . . . . But now with the workgroups, teachers have time to work on whatever their area of emphasis is and it's something that is directly pertaining to our goals. Teachers have time every week, we have release time to get out of class at 1:45, we start our groups and [some of us stay] at least until 3:45 or 4:00.

The workgroups have clearly played a role in helping educators build cohesion, the fundamental notion underlying our model of change. A participant in the integrated teaching group spoke about the role of the workgroup in helping her maintain a clear—and professionally stimulating—focus.

> I loved the group. It helped me focus. I wanted dialog, working together, and planning time. And I got all these things. That was great. I get bored unless I have this kind of mental stimulation.

In a survey conducted of the entire faculty in the spring of 1994 (n=30), teachers expressed extremely positive views of the workgroups in which they had participated. On a scale from 1 to 5 (where 5 represents the most positive response), 90% responded 4 or 5 when asked whether workgroup participation had had a positive effect on their classroom teaching. Responses to other items were also positive: 79% chose 4 or 5 when asked to what extent workgroup participation enhanced professional relationships with other teachers; 93% rated the quality of the interaction among participants 4 or 5 (where 5 indicates productive, supportive, helpful, and relevant feedback and comments); and 90% rated the content of their workgroup 4 or 5 (where 5 indicates clear and consistent focus).

Other teaching changes were reported as a result of workshops we held. For example, teachers report assigning homework more regularly:

> The upper grade teachers have always given homework, but now they give more of it and they give it more consistently. Less of it is busywork although there's a wide variety in the kind of homework they give. I think the students respond positively— they're more serious and responsible about schoolwork when they have homework regularly. The homework in-service reminded teachers how homework fits into classroom lessons, how valuable homework is for the kids.

Another teacher reported the following:

> Where I notice the difference is in how their reading improves when they read at home. The parents have to sign the homework slip, just for the record. It never fails—the more they read at home the faster they progress. And the Homework Club makes it easier to follow through with those who forget to do their homework. I can tell the difference with the new students I received. One teacher didn't have her students read at home and the other did. The students who read at home do much better in my class than those from the teacher who never had them read at home.

Assistance provided in the context of the Academic Assessment Committee, which worked closely with UCLA researchers, allowed participating teachers to develop clearer understandings of the depth and breadth of changes needed in order to improve teaching and learning. Teachers also revealed an understanding of the importance of continuing to work from year to year, and of the importance of the AAC's assistance to their peers:

> [I am hoping] that next year the [Academic Assessment] Committee will kind of keep what they've come up with this year and work with the grade levels in their monthly meetings to start working with the teachers as a group. In small groups. Next year they're gonna work on reading a story and writing a summary and coming up with what ... the author's purpose was, or reading something from social studies and being able to give a summary of what you've learned plus answering an inferential kind of question. *The teachers will start doing those things in their classroom* bringing it back as to how they think they did, how they

didn't. Maybe their kids got it, [or] they didn't. Whatever . . . techniques we can use. Brainstorming and supporting each other at individual grade levels. So, from what I saw this year I think teachers are excited about trying it, but they're not sure about how to go about doing some of the new things that are being asked of them. So this is a way, kind of like another kind of workgroup, just not meeting on a weekly basis, that will *support them and nudge them along in the right direction.* So, we'll see. [emphasis added]

Improvements in School Climate

Over the past several years we have seen a steady improvement in the school climate in general. In the second year of the project, a second-grade teacher exclaimed, "The climate has definitely improved. I received a lot of support—praise and positive feedback—from the second-grade teachers for working on academic expectations." A colleague, who the year before could not get away from the school and the staff quickly enough, noted, "The school climate is much more positive—there's much less overload. I'm looking forward to the end of the year luncheon." One veteran teacher observed, "Our school is the best place it's been since it started. There's a real different feeling, a different atmosphere."

In the third year of the project, a teacher who had initially been very skeptical of the principal's early change efforts said,

> I think the school climate is one of the best . . . I have seen for a long time—and I've been around—in the sense that teachers not only share with each other, but they talk to each other. I have been at schools where teachers don't talk to each other. They walk on top of you, and they don't even say good morning. That was my biggest shock when I came to this country. Nobody says good morning. It's like none of your business, you know.

Another veteran teacher, when asked whether she thought teacher morale was any different now (spring, 1993) than when the project began, answered:

> This is a bad time of the year (laughing) to ask about teacher morale because they're tired (laughs). Yeah, I think they are [more positive]. They are. I think they're more positive. Oh, definitely more positive than they were a few years ago . . . . We're in pretty good shape . . . pretty good shape.

In the spring of 1994, when asked how they thought things were going in the school's efforts to improve student achievement, 90% of the teachers rated this item 4 or 5.

One reason for the change in school climate, we would argue, is that there is a coherent sense of what is happening at the school, and teachers have begun to see progress in improving student achievement. One teacher made this observation:

> From the children I've seen coming in here from other districts that must be similar to ours, I don't think that a lot of places put such an emphasis on academic achievement. [They might just assume] the LEP child may be an economically disadvantaged child. There's more of an acceptance. . . .

> They're just going to be a year or two behind. And Jessie doesn't accept that or just give up. There's no surrendering. We keep trying. We keep trying. And I think we've been pretty successful, so far.

This same teacher said this about the current principal:

> I think other principals have maybe had projects or interests, areas of concern, but Jessie seems to be trying to deal with *the whole entire curriculum*, and the things she does are interesting. I don't appreciate monologues from one individual [or occasional] in-servicing. It was okay, but *I don't think it was as thorough . . . anywhere near as thorough as what Jessie's brought to us.* [emphasis added]

Finally, a kindergarten teacher provides an insight into how two distinct activities—AAC meetings and grade-level meetings—are coordinated. This coordination contributed to a coherent effort that involves the entire staff.

> We have our grade-level meetings, and we have our academic assessment committees and . . . *they all kind of correlate together.* And say at the Academic Assessment Committee if we talked about oh, when you go back to your grade-level meeting ask them about this, this, and that. Remember [get] input before we finalize this. We just don't do things and they're stone. We take them back to our grade levels we look them over and we kind of make changes, take them back and if everyone agrees then we go on from there. *Nobody is left out in the dark and everyone knows what's going on.* I would say . . . everyone gets to participate in the decision-making at this school. It's very good. [emphasis added]

All this participatory decision making, however, is not without a price. Teachers attend many meetings and must be out of their classrooms more often than they would like. Sometime during the third year of the project, one anonymous wit put a sign in the teacher's lounge, which said, "In between meetings, I teach." Despite these and other pitfalls, however, the consensus at the school seemed to be that we were moving in the right direction. Most important, as we see in the next section, there was clear evidence of positive effects on student achievement.

Changes in Achievement

Our test results are also very encouraging. Student achievement in both English (as gauged by CAP and CLAS tests) and Spanish (as gauged by SABE scores) has improved at Freeman since the project's beginning. Student achievement at Freeman now exceeds that of other district schools. Figures 2 - 4 (page 18) graphically depict these data.

FIGURE 2: CAP/CLAS READING SCORES: BASELINE YEARS AND YEAR 3

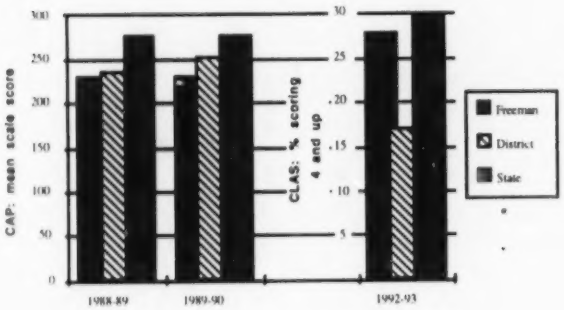


FIGURE 3: CAP/CLAS WRITING SCORES: BASELINE YEARS AND YEAR 3

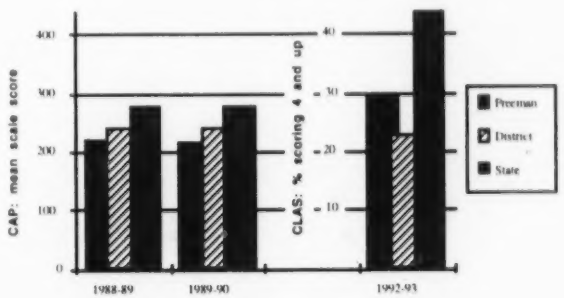
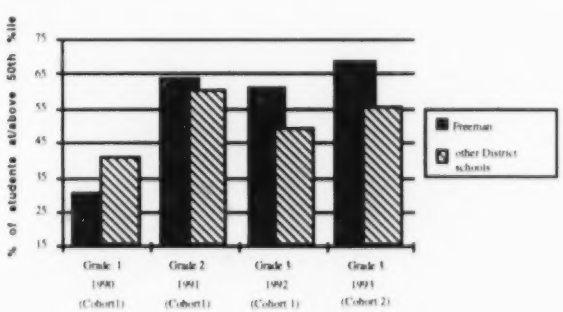


FIGURE 4: SPANISH (SABE) READING SCORES: BASELINE THRU YEAR 3


% of students at/above 50th %ile
Freeman
other District schools
Grade 1 1990 (Cohort1)
Grade 2 1991 (Cohort1)
Grade 3 1992 (Cohort 1)
Grade 3 1993 (Cohort 2)

To what extent is our model, and more specifically the four change elements, responsible for the changes in teacher attitudes and student achievement? It is, of course, impossible to know with certainty, but our evidence suggests that the model has generally worked as we predicted.

Still a Complex, Difficult Picture

Readers should be wary of the very—perhaps even excessively—positive portrait of change sketched above. First, much remains to be done at Freeman. There are still too many children not achieving at satisfactory levels, as our own data clearly show. Second, even to the extent that we have been successful, we would mislead readers if we left the impression that school-wide changes were a straightforward matter of specifying a model then implementing structures and activities. Fullan is characteristically on the mark when he observes that "educational change is inherently, endemically, ineluctably nonlinear" (quoted in Olson, 1994, p. 32). Miles and Louis put it more colorfully. Change is "a matter of dealing with uncertainty, complexity, turbulence, and the cussedness of many different people" (Miles & Louis, 1990, p. 57).

Space does not permit us to give an adequate treatment of the dark side of reform, the side with those troubling, discouraging, mind-boggling aspects of the process that we suspect discourage many well-intentioned school reformers. Nor can we deal with many of the other issues that were either explicit or implicit in our work at Freeman. At the risk of superficiality, however, we would like to enumerate four of these issues, which we hope to consider more completely in the future.

(1) **How do you get "buy-in" from a staff?** Meaningful change and improvement are impossible without a critical mass of teachers willing to make some changes. In fact, such current reform efforts as Accelerated Schools, Success for All, and Coalition of Essential Schools, require an explicit faculty "buy-in" as a precondition to joining their networks (Olson, 1994). But what about the other tens of thousands of schools where buy-in does not exist? Perhaps a more fundamental question to ask is, must initial buy-in be a precondition for change? Or does buy-in follow from first making some changes—even in the face of initial reluctance—that later produce tangible results? McLaughlin (1990) suggests that buy-in can follow change, no less than change can follow buy-in. Our experience would support McLaughlin. The most skeptical teacher at the first AEC meeting eventually became one of the strongest and most respected supporters of change efforts. Sooner or later in the process, faculties must join in; the problem of buy-in cannot be defined or designed away.

(2) **How much depends on content rather than on process?** As Fullan (1991), McLaughlin (1990), and others have noted, many school reform efforts can be criticized for being content-free and for relying on structures and processes while not being informed by substantive knowledge and understanding of how children learn and how teachers ought to teach. Certainly our model (Figure 1) can be criticized on these grounds. Nowhere does it specify instructional strategies nor a theory of teaching and learning. In practice, content was provided by the academic goals and assessments we developed and by the in-service and teacher workgroup topics that we selected. These goals, assessments, and topics provided the substance of our project beyond the organizational and structural features (i.e., the process). To what extent are our results the outcome of these particular content selections? Would our results have been any worse or any better had we selected a different set? And most important, should a model or theory of school change specify content selections, even if it does so very generally? Should we, for example, "Select a program that has been scientifically validated or featured in the National Diffusion Network" (National Dissemination Study Group, 1989)?

(3) **What is the role of students' home culture?** Recent reports have criticized the reform movement for ignoring cultural issues and the culture-specific needs of minority and immigrant students (e.g., Olsen et al., 1994). Others argue that the key dimensions of effective teaching and schooling are essentially the same across groups of students, and that, therefore, educators should concentrate on widespread implementation of "effective" practices for all (Wang, Reynolds, & Walberg, 1994). Is generic reform possible or must reform be population specific? As on the issue of content, our model is silent on the issue of culture.

However, we know that specific features of our project are fully compatible with the cultures of the students at the school. For example, we know that parents in this community value academic achievement to the point that sometimes they mildly criticize American schools for low academic standards (Goldenberg & Gallimore, 1991a). The entire thrust of our project was to improve student achievement; we know that parents value this improvement for their child's future well-being (Goldenberg & Gallimore, in press). Parents also value such educational practices as homework and parent-teacher contacts, which were also a focus of our project. Moreover, we had the luxury of working in a setting with a reasonably well-implemented bilingual education program, which in many respects already attended to important cultural issues such as language of instruction.

However, there is more to culture than educational values, homework, and language of instruction. Did we pay sufficient attention to other potentially important aspects of student and family culture? Scholars argue that many cultural variables interact with teaching/learning variables and that, to be optimally effective, school practices must accommodate to certain features of children's natal culture (e.g., Tharp, 1989). One hypothesis is

that our results—and the results of other school change efforts—would be stronger if we had a more comprehensive focus on students' culture and on the role that it might play in the educational process.

(4) **How can educators manage change when change seems so protracted?** Changing school practices is a more daunting and drawn-out task than many educators realize. There are undoubtedly many reasons for this difficulty; perhaps chief among them is that changing schools, as is true of changing any complex organization, involves making a cultural change. Perhaps the problem of change is the problem of finding or constructing meaning for new practices, norms, and expectations (Fullan, 1991). Unfortunately, the development of meaning takes considerable time and is subject to vagaries of diverse individuals who are coming to terms with complex and shifting realities. One teacher in our project described the change process this way:

> It is demanding. It's very demanding . . . . [The principal is] really interested in improving our academic performance. . . . The expectations, the rest was really up to us. I feel that she's gonna have to put up with this kind of amorphous thing or let it go whereever it will. She might hope for some uniformity, and quicker development than we've been able to come about with. I don't know; she never seems to be satisfied with it. I think we've been able to come to conclusions, to compromise, and to discussion, and maybe seen each other's views, and seen each other's strengths and weaknesses, but I think a lot of the time it's like a big amoeba. We don't know which way it's going to go. These different parts are all acting differently. Then things begin to come into line.

Are change efforts inherently—as this teacher describes them—a big amorphous amoeba? Perhaps the process can be shortened, or at least tightened, and made more rational and predictable.

Conclusions: A Science of School Reform

Can changing schools ever be a science, as Fullan (1991) suggests? If so, perhaps we could avoid the cycles of reform and disappointment that our educational system experiences periodically. We do not know whether school reform can ever be a science, although we suspect that, at best, we will be able to point to some scientific basis for the art of school improvement, much as we can point to a scientific basis for the art of teaching (Gage, 1978). The model we illustrated in Figure 1, which has guided our thinking and action, represents one way in which we have tried to make the process more scientific. The model is explicit; it identifies important factors and variables and postulates relationships among them; it provides a rationale and (to the extent it is valid) perhaps predictable guide for action.

Much remains elusive, however, and a great deal of what is needed to accomplish successful change in schools is probably not amenable to scientific manipulation. Successful change will, instead, depend upon

clinical or expert judgment in specific contexts: practicing the qualities of leadership that constitute the right mixture of "support" and "pressure"; preventing the potentially devastating impact of early discouraging data; achieving certain qualities of human relationships; respecting the local issues while being informed by research findings (Goldenberg & Gallimore, 1991a). All of these would seem to defy clear answers based upon scientific propositions. Fullan (1985) speaks of a "feel for the improvement process" (p. 400). Perhaps we must content ourselves with such inherently amorphous and unscientific concepts.

We are skeptical about whether we can ever have a science of school improvement, because we suspect that reformers will have to do a certain amount of reinventing the wheel with each new reform effort. Reformers will have to come up with locally generated answers to problems, even though previous reformers have come up with similar answers before. As Comer (1980), Fullan (1991), and others have noted, although innovations can be brought in successfully from the outside, programs developed elsewhere are often unsuccessful, because people do not always understand them nor the rationale for them as do the original developers. This variance of understanding, by itself, can militate against a science of school reform.

In any case, we are guided by the assumption that change can come about through a rational, systematic process that builds coherence and establishes a context for change by identifying agreed-upon goals, establishing valid indicators, giving assistance where needed, and providing the right kind of leadership. For the moment, we take heart from the climate that has emerged at Freeman School and from the changes we have seen in student achievement. The faculty have coalesced around a coherent effort to enhance the academic development of the children they teach, and this coalescence seems to have produced positive and important results.

Notes

[1] Readers wishing more information on the content of the goals and expectations are invited to contact the authors.

References

Ashton, P. T., Webb, R. B., & Doda, N. (1983). *A study of teachers' sense of efficacy: Final report, executive summary.* Gainesville, FL. (ERIC Document Reproduction Service No. ED 231 833)

Barr, R. (1973-74). Instructional pace differences and their effects on reading acquisition. *Reading Research Quarterly, 9,* 526-554.

Barr, R., & Dreeben, R. (1983). *How schools work.* Chicago: University of Chicago Press.

Baseggio, B. (1990). Meeting the challenge. *Thrust for Educational Leadership, 19,* 41-45.

Berman, P., Chambers, J., Gandara, P., McLaughlin, B., Minicucci, C., Nelson, B., Olsen, L., & Parrish, T. (1992). *Meeting the challenge of language diversity: An evaluation of programs for pupils with limited proficiency in English. Vol I: Executive Summary.* Berkeley, CA: BW Associates.

Berman, P., & McLaughlin, M. (1977). *Federal programs supporting educational change. Vol. VII. Factors affecting implementation and continuation.* Santa Monica, CA: Rand. (ERIC Document Reproduction Service No. ED140 432)

Bickel, W. (Ed.). (1983). Effective schools [Special issue]. *Educational Researcher, 12*(4).

Blase, J. (1987). Dimensions of effective school leadership: The teacher's perspective. *American Educational Research Journal, 24,* 589-610.

Bliss, J., Firestone, W., & Richards, C. (Eds.). (1991). *Rethinking effective schools: Research and practice.* Englewood Cliffs, NJ: Prentice Hall.

Brandt, R. (1987). On leadership and student achievement: A conversation with Richard Andrews. *Educational Leadership, 45* (1), 9-16.

Brophy, J. (1983). Research on the self-fulfilling prophecy and teacher expectations. *Journal of Educational Psychology, 75,* 631-661.

Brophy, J., & Good, T. (1986). Teacher behavior and student achievement. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 328-375). New York: Macmillan.

Byrnes, S. (1994, May 15). LEARN plan under fire at grade school. *Los Angeles Times,* p. J9.

California State Department of Education (1981). *Schooling and language minority children.* Los Angeles: California State University; Evaluation, Dissemination and Assessment Center.

California State Department of Education (1986). *Beyond language: Social and cultural factors in schooling language minority students.* Los Angeles: California State University; Evaluation, Dissemination and Assessment Center.

California State Department of Education (1987). *English-language arts framework for California public schools.* Sacramento: California State Department of Education.

Calkins, L. M. (1986). *The art of teaching writing.* Portsmouth, NH: Heinemann.

Carnegie Foundation for the Advancement of Teaching. (1990). *The condition of teaching: A state-by-state analysis, 1990.* Princeton, NJ: Author.

Carter, T., & Chatfield, M. (1986). Effective bilingual schools: Implications for policy and practice. *American Journal of Education, 95,* 200-232.

Chall, J. (1983). *Stages of reading development.* New York: McGraw-Hill.

Clark, C. M., & Peterson, P. L. (1986). Teachers' thought processes. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (pp. 255-296). New York: MacMillan.

Clay, M. (1985). *The early detection of reading difficulties* (3rd ed.). Portsmouth, NH: Heinemann.

Cohen, D. (1988). *Teaching practice: Plus ça change . . .* (Issue paper 88-3). East Lansing, MI: Michigan State University, National Center for Research on Teacher Education.

Cohen, D., Peterson, P., Wilson, S., Ball, D., Putnam, R., Prawat, R., Heaton, R., Remillard, J., & Wiemars, N. (1990). *Effects of state-level reform of elementary school mathematics curriculum on classroom practice* (NCRTE Research Rep. No. 90-14). East Lansing, MI: Center for the Learning and Teaching of Elementary Subjects.

Comer, J. (1980). *School power: Implications of an intervention project.* New York: Free Press.

Committee for Economic Development (1991). *The unfinished agenda: A new vision for child development and education.* New York: Author.

Cooper, H. (1989). *Homework.* New York: Longman.

Cooper, H., & Burger, J. (1980). How teachers explain students' academic performance: A categorization of free response academic attributions. *American Educational Research Journal, 17,* 95-109.

Cuban, L. (1990). Reforming again, again, and again. *Educational Researcher, 19* (1), 3-13.

Deci, E. (1975). *Intrinsic motivation.* New York: Plenum.

De La Rosa, D., & Maw, C. (1990). *Hispanic education: A statistical portrait.* Washington, DC: National Council of La Raza.

Dole, J., Duffy, G., Roehler, L., & Pearson, P. (1991). Moving from the old to the new: Research on reading comprehension instruction. *Review of Educational Research, 61,* 239-264.

Edmonds, R. (1979). Effective schools for the urban poor. *Educational Leadership, 37*(1), 15-27.

Finn, C., & Walberg, H. (Eds.). (1994). *Radical educational reforms.* Berkeley, CA: McCutchan.

Frieze, I. (1976). Causal attributions and information-seeking to explain success and failure. *Journal of Research in Personality, 10,* 293-305.

Fullan, M. (1985). Change processes and strategies at the local level. *Elementary School Journal, 85,* 391-420.Fullan, M. (1991). *The new meaning of educational change.* New York: Teachers College Press.

Fullan, M., Bennett, B., & Rolheiser-Bennett, C. (1990). *Educational Leadership, 47* (8), 13-19.

Gage, N. L. (1978). *The scientific basis of the art of teaching.* New York: Teachers College Press.

Gold, N. (1992). Building bilingual instruction: Putting the pieces together. *BEOutreach, 3*(1), 6-8. (Available from Daniel Holt, Editor, *BEOutreach,* Bilingual Education Office, P.O. Box 944272, Sacramento, California 94244-2720)

Goldenberg, C. (1993). The home-school connection in bilingual education. In B. Arias & U. Casanova (Eds.), *Bilingual education: Politics, research, and practice* (92nd Yearbook of the National Society for the Study of Education, pp. 225-250). Chicago: University of Chicago Press.

Goldenberg, C., & Gallimore, R. (1991a). Local knowledge, research knowledge, and educational change: A case study of first-grade Spanish reading improvement. *Educational Researcher, 20* (8), 2-14.

Goldenberg, C., & Gallimore, R. (1991b). Changing teaching takes more than a one-shot workshop. *Educational Leadership, 49* (3), 69-72.

Goldenberg, C., & Gallimore, R. (in press). Immigrant Latino parents' values and beliefs about their children's education: Continuities and discontinuities across culture and generations. In P. Pintrich & M. Maehr (Eds.), *Advances in motivation and achievement : Culture, ethnicity, and motivation* (Vol. 9). Greenwich, CT: JAI Press.

Good, T., & Brophy, J. (1986). School effects. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp.570-602). New York: Macmillan.

Graves, D. (1983). *Writing: Teachers and children at work.* Portsmouth, NH: Heinemann.

Harp, L. (1992, November 18). Group dissects education "industry" with eye to improving productivity. *Education Week,* pp. 1, 13.

Haycock, K., & Navarro, S. (1988). *Unfinished business: Fulfilling our children's promise.* Oakland, CA: The Achievement Council.

Hess, A. (1991). *School restructuring, Chicago style.* Newbury Park, CA: Corwin.

Huberman, A. M. (1983). School improvement strategies that work: Some scenarios. *Educational Leadership, 41* (3), 23-27.

Jackson, P. (1968). *Life in classrooms.* New York: Holt, Rinehart &Winston.

Jiménez-Hami, A., & Goldenberg, C. (1994, April). Promoting home-school connections for Latino students through the use of homework and the "homework liaison." Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Joyce, B., & Showers, B. (1983). *Power in staff development through research on training.* Alexandria, VA: Association for Supervision and Curriculum Development.

Kirst, M., & Associates. (1989). *Conditions of children in California.* Berkeley, CA: Policy Analysis for California Education.

Koehler, V. R. (1988, April). Teachers' beliefs about at-risk students. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED 312 359)

Leonard, G. (1992, May). The end of school. *The Atlantic*, pp. 24-32.

Lieberman, A. (1988a). Expanding the leadership team. *Educational Leadership, 45* (5), 4-8.

Lieberman, A. (1988b). Teachers and principals: Turf, tension, and new tasks. *Phi Delta Kappan, 69,* 648-653.

Little, J. (1982). Norms for collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19,* 325-340.

Little, J., Gerritz, W., Stern, D., Guthrie, J., Kirst, M., & Marsh, D. (1987). *Staff development in California.*, San Francisco and Berkeley: Far West Laboratory for Educational Research & Policy Analysis for California Education (PACE).

Lortie, D. (1975). *School teacher: A sociological study.* Chicago: University of Chicago Press.

Loucks-Horsley, S., & Mundry, S. (1991). Assisting change from without: The technical assistance function. In J. Bliss, W. Firestone, & C. Richards (Eds.), *Rethinking effective schools: Research and practice* (pp. 112-127). Englewood Cliffs, NJ: Prentice Hall.

McLaughlin, M. (1990). The Rand Change Agent Study revisited: Macro perspectives and micro realities. *Educational Researcher, 19* (9), 11-16.

Miles, M. (1983). Unraveling the mystery of institutionalization. *Educational Leadership, 41* (3), 14-19.

Miles, M., & Louis, K. (1990). Mustering the will and the skill for change. *Educational Leadership, 47* (8), 57-61.

Millican, A. (1991, October 27). Program is success in any language. *Los Angeles Times* (South Bay edition), pp. B1, B5.

Mullis, I., Campbell, J., & Farstrup, A. (1993). *NAEP 1992 reading report card for the nation and the states* (Rep. No. 23-ST06). Washington, DC: U.S. Department of Education.

Mullis, I., Dossey, J., Campbell, J., Gentile, C., O'Sullivan, C., & Latham, A. *NAEP 1992 trends in academic progress* (Rep. No. 23-TR01). Washingtion, DC: U.S. Department of Education.

Mullis, I., Owen, E., & Phillips, G. (1990). *America's challenge: Accelerating academic achievement* (Rep. No. 19-OV-01). Princeton, NJ: Educational Testing Service.

Murphy, J. (1991). *Restructuring schools: Capturing and assessing the phenomena.* New York: Teachers College Press.

National Council of Teachers of Mathematics (1989). *Curriculum and evaluation standards for school mathematics.* Reston, VA: Author.

National Dissemination Study Group (1989). *Educational programs that work* (15th ed.). Longmont, CO: Sopris West.

Olsen, L., Chang, H., De la Rosa Salazar, D., Leong, C., McCall Perez, Z., McClain, G., & Raffel, L. (1994). *The unfinished journey: Restructuring schools in a diverse society.* San Francisco, CA: California Tomorrow.

Olson, L. (1994, November 2). Growing pains; School reform networks at a glance; Learning their lessons. *Education Week,* pp. 29-46.

Pandey, T. (1991). *A sampler of mathematics assessment.* Sacramento, CA: California State Department of Education.

Peterson, K., & Lezotte, L. (1991). New directions in the effective schools movement. In J. Bliss, W. Firestone, & C. Richards (Eds.), *Rethinking effective schools: Research and practice* (pp. 128-137). Englewood Cliffs, NJ: Prentice Hall.

Pressman J., & Wildavsky, A. (1973). *Implementation.* Berkeley, CA: University of California Press.

Redefining Supervision. (1989). [Special issue]. *Educational Leadership, 46* (8).

Richardson, L. (1994, Nov. 5). Renowned Southland school system in jeopardy. *Los Angeles Times,* p. A38.

Rosenholtz, S. (1989). *Teachers' workplace: The social organization of schools.* New York: Longman.

Rosenshine, B., & Stevens, R. (1986). Teaching functions. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 376-391). New York: Macmillan.

Rowan, B. (1990). Commitment and control: Alternative strategies for the organizational design of schools. *Review of Research in Education, 16,* 353-389.

Russell, R. (1991, May 4). Gun-toting student upsets peace at school. *Los Angeles Times,* pp. B3, B8.

Sarason, S. (1971). *The culture of the school and the problem of change.* Boston: Allyn and Bacon.

Sarason, S. (1990). *The predictable failure of educational reform: Can we change course before it's too late?* San Francisco: Jossey-Bass.

Sashkin, M., & Egermeier, J. (1993). *School change models and processes: A review and synthesis of research and practice.* Washington, DC: U.S. Department of Education.

Saunders, W., Goldenberg, C., & Hamann, J. (1992). Instructional conversations beget instructional conversations. *Teaching and Teacher Education, 8,* 199-218.

Savage, D. (1985, September 6). A teaching trial—the unread tale. *Los Angeles Times,* pp. 1, 22.

Showers, B., Joyce, B., & Bennett, B. (1987). Synthesis of research on staff development: A framework for future study and a state-of-the-art analysis. *Educational Leadership, 45* (3), 77-87.

Slavin, R., Karweit, N., & Wasik, B. (1994). *Preventing early school failure: Research, policy, and practice.* Needham Heights, MA: Allyn and Bacon.

Slavin, R., Madden, N, Karweit, N., Livermon, B., & Dolan, L. (1990). Success for all: First-year outcomes of a comprehensive plan for reforming urban education. *American Educational Research Journal, 27,* 255-278.

Sullivan, J. (1994). *Producing change in an urban, second-language elementary school.* Unpublished doctoral dissertation, University of California, Los Angeles.

Sweeney, J. (1982). Research synthesis on effective school leadership. *Educational Leadership, 39* (5), 346-352.

Tharp, R. (1989). Psychocultural variables and constants: Effects on teaching and learning in schools. *American Psychologist, 44,* 349-359.

Tharp, R., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning and schooling in social context.* Cambridge, England: Cambridge University Press.

Tharp, R., & Gallimore, R. (1989). Rousing schools to life. *American Educator, 13,* (2), 20-25+.

Tyler, R. (1949). *Basic principles of curriculum and instruction.* Chicago: University of Chicago Press.

Vernez, G., & Rondfeldt, D. (1991). The current situation in Mexican immigration. *Science, 251,* 1189-1193.

Walberg, H. (1984). Improving the productivity of America's schools. *Educational Leadership, 41* (8), 19-27.

Walberg, H. (1986). Synthesis of research on teaching. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 214-229). New York: Macmillan.

Walberg, H. (1990). Productive teaching and instruction: Assessing the knowledge base. *Phi Delta Kappan, 71,* 470-478.

Wang, M., Haertel, G., & Walberg, H. (1993). Toward a knowledge base for school learning. *Review of Educational Research, 63,* 249-294.

Wang, M., Reynolds, M., & Walberg, H. (1994). What works and what doesn't work: The case for an inclusive system. In C. Finn & H. Walberg (Eds.), *Radical educational reforms* (pp. 151-176). Berkeley, CA: McCutchan.

Weiner, B. (1980). *Human motivation.* New York: Holt, Rinehart and Winston.

What should elementary students be doing? (1992, Fall). *American Educator,* pp. 18-22, 42-45.

Winfield, L. F. (1986). Teacher beliefs toward academically at risk students in inner urban schools. *The Urban Review, 18,* 253-268.

Other Reports from NCRCDSLL

Research Reports

RR 1 *Sociological Foundations Supporting the Study of Cultural Diversity* (1991), Hugh Mehan

RR 2 *The Instructional Conversation: Teaching and Learning in Social Activity* (1991), Roland G. Tharp & Ronald Gallimore

RR 3 *Appropriating Scientific Discourse: Findings from Language Minority Classrooms* (1992), Ann S. Rosebery, Beth Warren & Faith R. Conant

RR 4 *Untracking and College Enrollment* (1992), Hugh Mehan, Amanda Datnow, Elizabeth Bratton, Claudia Tellez, Diane Friedlaender & Thuy Ngo

RR 5 *Mathematics and Middle School Students of Mexican Descent: The Effects of Thematically Integrated Instruction* (1992), Ronald W. Henderson & Edward M. Landesman

RR 6 *Moving In and Out of Bilingualism: Investigating Native Language Maintenance and Shift in Mexican-Descent Children* (1993), Lucinda Pease-Alvarez

RR 7 *Two-Way Bilingual Education: A Progress Report on the Amigos Program* (1993), Mary Cazabon, Wallace E. Lambert & Geoff Hall

RR 8 *Literacy Practices in Two Korean-American Communities* (1993), Robin Scarcella & Kusup Chin

RR 9 *Teachers' Beliefs about Reading Assessment with Latino Language Minority Students* (1994), Robert Rueda & Erminda Garcia

RR 10 *Tracking Untracking: The Consequences of Placing Low Track Students in High Track Classes* (1994), Hugh Mehan, Lea Hubbard, Angela Lintz & Irene Villanueva

RR 11 *Students' Views of the Amigos Program* (1994), Wallace E. Lambert & Mary Cazabon

Educational Practice Reports

EPR 1 *The Education of Linguistically and Culturally Diverse Students: Effective Instructional Practices* (1991) , Eugene E. García

EPR 2 *Instructional Conversations and Their Classroom Application* (1991), Claude Goldenberg

EPR 3 *Language Minority Education in the United States: Implications of the Ramirez Report* (1992), Courtney B. Cazden

EPR 4 *Rating Instructional Conversations: A Guide* (1992), Robert Rueda, Claude Goldenberg & Ronald Gallimore

EPR 5 *Myths and Misconceptions about Second Language Learning: What Every Teacher Needs to Unlearn* (1992), Barry McLaughlin

EPR 6 *Teacher Research on Funds of Knowledge: Learning from Households* (1993), Norma González, Luis C. Moll, Martha Floyd-Tenery, Anna Rivera, Patricia Rendón, Raquel Gonzales, & Cathy Amanti

EPR 7 *Instructional Conversations in Special Education Settings: Issues and Accommodations* (1993), Jana Echevarria & Renee McDonough

EPR 8 *Integrating Language and Culture in Middle School American History Classes* (1993), Deborah J. Short

EPR 9 *Links Between Home and School Among Low-Income Mexican-American and European-American Families* (1994), Margarita Azmitia, Catherine R. Cooper, Eugene E. Garcia, Angela Ittel, Bonnie Johanson, Edward M. Lopez,Rebeca Martínez-Chávez, & Lourdes Rivera

EPR 10 *Effective Instructional Conversation in Native American Classrooms* (1994), Roland G. Tharp & Lois A. Yamauchi

EPR 11 *Integrating Language and Content: Lessons from Immersion* (1994), Fred Genesee

EPR 12 *Two-Way Bilingual Education: Students Learning Through Two Languages* (1994), Donna Christian

EPR 13 *Making Change Happen in a Language Minority School: A Search for Coherence* (1994), Claude Goldenberg & Jessie Sullivan

To order copies of Research Reports and Educational Practice Reports

PLEASE CONTACT:

Dissemination Coordinator
National Center for Research on Cultural Diversity and Second Language Learning
Center for Applied Linguistics
1118 22nd Street N.W.
Washington, D.C. 20037
202-429-9292

THE NATIONAL CENTER FOR
RESEARCH ON
CULTURAL DIVERSITY AND
SECOND LANGUAGE LEARNING
141 KERR HALL
UNIVERSITY OF CALIFORNIA
SANTA CRUZ, CA 95064
PHONE: (408) 459-3500
FAX: (408) 459-3502

recycled paper